

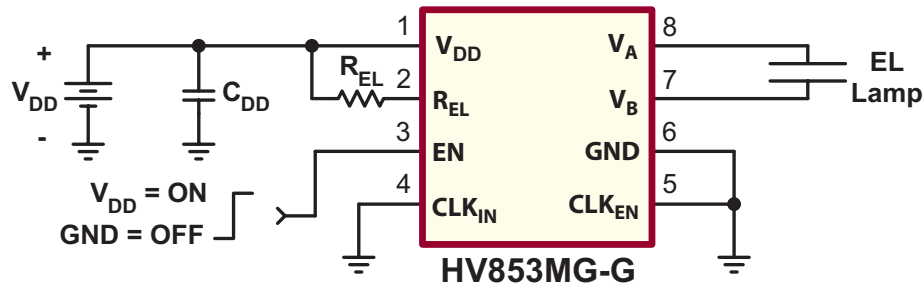
Product Summary Sheet

Applications:

- ▶ Cellular phone keypad
- ▶ Watches
- ▶ Small handheld wireless devices
- ▶ MP3 Players

HV853

High Voltage, Low Noise, Inductorless EL Lamp Driver



Typical Application Circuit

Product Overview:

The Supertex HV853 is a high voltage, low noise EL (electroluminescent) lamp driver. It is the low noise version of the HV852 with improved EMI performance, operating over an input voltage range of 3.2V to 5.0V. It is designed to drive EL lamps of up to 1.5in², with capacitive values up to 5.3nF. The HV853 converts a low voltage DC input to a high voltage AC output across an EL lamp. A nominal regulated output voltage of ±80V is applied to the EL lamp. It uses a charge pump scheme to boost the input voltage eliminating the need for an external inductor, diode, and high voltage capacitor commonly found in conventional topologies.

The charge pump circuit discharges its energy into an EL lamp through a high voltage H-bridge. Once the voltage reaches its regulated limit, it is turned off to conserve power. The EL lamp is then discharged to ground and the H-bridge changes state to allow the charge pump to charge the EL lamp in the opposite direction.

The EL Lamp frequency can be set either by an external resistor R_{EL} or by applying an external clock where the clock frequency is divided by 128 to set the EL Lamp frequency.

Features:	Benefits:
Patented inductorless EL lamp driver	Small circuit, low profile/height
Requires minimal external components	Saves space and cost
Low EMI noise	Ideal for use in noise-sensitive applications, i.e., cell phones
160V peak-to-peak output voltage	Higher lamp brightness
Output voltage regulation	Uniform brightness over input voltage range
Wide input voltage range of 3.2V to 5.0V	Ease of design with commonly available supply voltages in watches and cell phones
Enable function	Ease of control from microprocessor or other logic circuitry
Adjustable EL excitation frequency	Simple adjustment of lamp brightness and color



10-Lead DFN (K7)



8-Lead MSOP (MG)



110607

Supertex inc.

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Ordering Information / Availability

<i>Part Number</i>	<i>Package Option</i>	<i>Samples</i>	<i>Lead Time</i>
HV853K7-G	10-Lead DFN 3x3mm body, 0.80mm height (max), 0.50mm pitch	Now	4-5 Weeks
HV853MG-G	8-Lead MSOP 3x3mm body, 0.65mm pitch	Now	4-5 Weeks

-G indicates the part is RoHS compliant (Green).



Product Contact

For any questions regarding the HV853 please contact your local area Supertex sales office, or contact the main office in the US at:

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